## **CLAIMS**

What is claimed is:

- 1. A method of producing audio and/or video (AV) data in an interactive mode using a markup document, the method comprising dividing an operation state of a presentation engine for reproducing the markup document into a start state, a reproduction state, a pause state, and a stop state.
- 2. The method according to claim 1, wherein the reproducing state comprises:

a preloading process reading the markup document into a memory;

a loading process interpreting the markup document and loading the markup document on a screen; and

an interacting process facilitating an interaction between the markup document and a user.

- 3. The method according to claim 2, wherein the reproduction state further comprises a terminating process terminating the markup document loaded on the screen.
- 4. The method according to claim 2, wherein the reproduction state further comprises a discarding process discarding the markup document remaining in the memory.
- 5. The method according to claim 1, wherein the presentation engine temporarily stops the reproduction in the pause state.
- 6. The method according to claim 1, wherein in the pause state, the reproduction of markup resources stops, a timer in the presentation engine stops, and only events by a reproduction operation and a stop operation among user events are selectively received.
  - 7. The method according to claim 1, wherein in the stop state, the

reproduction of markup resources stops, a timer in the presentation engine stops, and information that is needed by the markup document and that is to be kept after the stop state is stored.

8. A method of presenting a markup document in an interactive mode, the method comprising:

interpreting the markup document and generating a document object tree;
receiving a user input and generating a first user event based on the user input;
parsing a stylesheet and generating a style rule/selector list;
interpreting a script code that is included in the markup document;
applying the style rule/selector list to the document tree to create a document form;
generating a formatting structure that corresponds to the document form or
changing a formatting structure according to a second user event;

rendering the markup document according to the document form; and decoding a markup resource that is linked to the markup document.

- 9. The method according to claim 8, wherein a root node of all nodes of the document tree is set as a document node, wherein all texts and elements generate nodes, and wherein a processing instruction, a comment, and a document type generate a node.
- 10. The method according to claim 8, further comprising preloading the markup document into a memory.
- 11. A method of reproducing audio and/or visual (AV) data in an interactive mode using a markup document, the method comprising:

interpreting the markup document and presenting the markup document comprising the AV data embedded therein on a screen; and

facilitating an interaction between the markup document and a user thereby allowing the user to pulse and/or stop the presentation of the markup document.

12. A computer-readable medium comprising computer-executable instructions for performing the operations recited in claim 1.

- 13. A computer-readable medium comprising computer-executable instructions for performing the operations recited in claim 2.
- 14. A computer-readable medium comprising computer-executable instructions for performing the operations recited in claim 8.
- 15. A computer-readable medium comprising computer-executable instructions for performing the operations recited in claim 11.